

## Experimental search for laser-induced effects in $^{151}\text{Eu}$ and $^{57}\text{Fe}$ doped crystals

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### Abstract

We studied the Mössbauer effect in  $^{151}\text{Eu}$  and  $^{57}\text{Fe}$  doped crystals in the search for laser-induced effects caused by changes in the hyperfine interaction due to electronic excitation. The Mössbauer spectra observed in the presence of laser radiation demonstrated a notable change of the shape of the  $^{151}\text{Eu}$  spectrum and the appearance of an additional hyperfine pattern in the case of the  $^{57}\text{Fe}$  Mössbauer resonance. © Nauka/Interperiodica 2007.

<http://dx.doi.org/10.1134/S1054660X07050210>

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